

Fig. 2 is a block diagram showing the main part of an image pickup apparatus according to the second embodiment. This embodiment will explain a method of recording part of image pickup data as color adjustment data (to be referred to as color balance data hereinafter) of a picked-up image in a data area of each image file when recording each pickup image on a recording medium.

Referring to Fig. 2, an image pickup data input terminal 201 receives image pickup data obtained by an image pickup element having four, R, G1, G2, and B, color filters and converted into digital data.

This image pickup data is processed in a main image processing unit 202 with various image processing operations for recording with high image quality as in a digital image recording apparatus such as a general digital camera. The processed image pickup data is then encoded by an encoding processing unit 203 in accordance with a JPEG recording format.

On the other hand, part of the image pickup data, e.g., pixel data of 64 pixels in the central portion of the two-dimensional image space of one picture is extracted by a color balance data extraction unit 204, as shown in Fig. 9. An averaging processing unit 205 generates an average value of 16-pixel data of each color component signal of R, G1, G2, or B.

An image filing unit 206 forms an image file into

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which the resultant average value is converted together with encoded image data. The average value is allocated to a predetermined color balance data area attached to an image file. A medium-recording unit 207
5 records the average value together with the original encoded image data as one image file on a recording medium.

The above operation is always done in all image pickup operations including normal image pickup. Color
10 balance image pickup is done as one of the general image pickup operations. Since color balance data is obtained by extracting an image of 64 pixels in the central portion of the picture, any color image except color balance data may be picked up around the 64-pixel
15 area.

A technique for setting in the image pickup apparatus a color balance control value used for color balance adjustment after white balance adjustment will be described below. A medium on which an image file
20 is recorded by the above recording scheme is loaded in the image pickup apparatus, and image file reproduction is done using a user interface shown in Fig. 7.

A PLAY button 703 shown in Fig. 7 is depressed to reproduce and display image data serving as an actual
25 reproduction target of the image file, on a reproduction monitor 701.

The operator sequentially switches a plurality of

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files with file selection switches 704 and 705 while viewing the pickup image displayed on the reproduction motor 701 and an image 709 superposed on the pickup image. The operator then selects one image file to be
5 used for color balance adjustment among a plurality of image files.

When one image file is reproduced and monitored, a color balance data reproduction unit 210 reads out and reproduces the color balance data from the attached
10 color balance data area.

File selection is done as follows. While a file in which color balance data used for color balance adjustment is written is being displayed on the monitor, a SELECT switch 708 is depressed to cause a
15 color balance data image selection unit 209 to select a desired file.

As indicated by the monitor 701 in Fig. 7, when the image pickup date and place are written in a location except a color balance data recording area 702
20 in intentionally picking up an image used for color balance adjustment, operation for the color balance data can be further facilitated.

In accordance with an image file selection signal indicating that a file is selected, the color balance
25 data image selection unit 209 extracts the color balance data of an image file being reproduced. A color balance control value operating unit 211

FOI b7E b7C b7D b7F b7G b7H b7I b7J b7K b7L b7M b7N b7O b7P b7Q b7R b7S b7T b7U b7V b7W b7X b7Y b7Z